

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

REVISED VERSION

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
18 May 2000 (18.05.2000)

PCT

(10) International Publication Number
WO 00/28142 A1(51) International Patent Classification⁷: D21H 23/58,
25/12, B05C 11/02

(21) International Application Number: PCT/FI99/00922

(22) International Filing Date:
5 November 1999 (05.11.1999)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
982424 9 November 1998 (09.11.1998) FICR, CU, CZ, CZ (utility model), DE, DE (utility model),
DK, DK (utility model), DM, EE, EE (utility model), ES,
FI, FI (utility model), GB, GD, GE, GH, GM, HR, HU, ID,
IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
PT, RO, RU, SD, SE, SG, SI, SK, SK (utility model), SL,
TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent
(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent
(AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

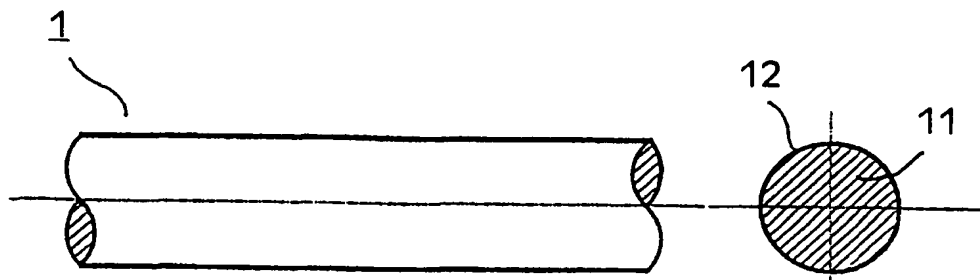
- With international search report.
- Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

(71) Applicant (*for all designated States except US*): VALMET
CORPORATION [FI/FI]; Fabianinkatu 9 A, FIN-00130
Helsinki (FI).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): LINTULA, Timo
[FI/FI]; Lintusyrjäntie 64, FIN-42700 Keuruu (FI). RATA,
Ilkka [FI/FI]; Vitsiälänkuja 4, FIN-40520 Jyväskylä (FI).(88) Date of publication of the revised international search
report: 30 November 2000(74) Agent: FORSSÉN & SALOMAA OY; Yrjönkatu 30,
FIN-00100 Helsinki (FI).(15) Information about Correction:
see PCT Gazette No. 48/2000 of 30 November 2000, Sec-
tion II(81) Designated States (*national*): AE, AL, AM, AT, AT (util-
ity model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: COATING BAR



(57) Abstract: The invention concerns a coating bar for a bar coater used in coating of paper or board and in particular a coating bar suited for surface-sizing, pigmenting, and film coating as well as a method for manufacture of the coating bar. The coating bar in accordance with the invention comprises a fibre-reinforced composite body, onto whose face a wear-resistant face has been prepared electrolytically, auto-catalytically, by means of thermal spraying, or by means of physical vapour deposition.

WO 00/28142 A1

1

REVISED
VERSION

INTERNATIONAL SEARCH REPORT

International application No.
PCT/FI 99/00922

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: D21H 23/58, D21H 25/12, B05C 11/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: B05C, B41F, D21H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 3505827 A1 (LEUZE, GERHART), 2 October 1986 (02.10.86), page 8, line 25 - line 28, claims 1-3, abstract --	1-10
Y	DE 8406019-0 U1 (SIGRI ELEKTROGRAPHIT GMBH), 24 May 1984 (24.05.84), page 4, line 4 - line 16; page 5, line 5 - line 15 --	1-10
Y	DE 4137970 A1 (STORA FELDMÜHLE AG), 27 May 1993 (27.05.93), claim 1 --	1-10

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

9 October 2000

Date of mailing of the international search report

11-10-2000

Name and mailing address of the ISA/

Swedish Patent Office

Box 5055, S-102 42 STOCKHOLM

Facsimile No. +46 8 666 02 86

Authorized officer

Monika Bohlin/Els

Telephone No. +46 8 782 25 00

2

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 99/00922

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5387172 A (HINRICH HABENICHT ET AL), 7 February 1995 (07.02.95), column 1, line 20 - line 65; column 2, line 64 - column 3, line 5, abstract --	1-10
A	WO 8805698 A1 (JAGENBERG AKTIENGESELLSCHAFT), 11 August 1988 (11.08.88), page 5 --	1-10
A	EP 0571351 A1 (VALMET PAPER MACHINERY INC.), 24 November 1993 (24.11.93), column 3, line 40 - column 4, line 23 --	1-10
A	WO 9400637 A1 (J.M. VOITH GMBH), 6 January 1994 (06.01.94), the claims --	1-10
A	US 5264247 A (TIMO LINTULA), 23 November 1993 (23.11.93), abstract -- -----	1-10

INTERNATIONAL SEARCH REPORT
Information on patent family members

01/08/00

International application No.

PCT/FI 99/00922

Patent document cited in search report			Publication date	Patent family member(s)	Publication date
DE	3505827	A1	02/10/86	DE 3518705 A,C	27/11/86
DE	8406019-0	U1	24/05/84	NONE	
DE	4137970	A1	27/05/93	NONE	
US	5387172	A	07/02/95	AT 158518 T	15/10/97
				DE 4226789 A	17/02/94
				DE 59307421 D	00/00/00
				EP 0582950 A,B	16/02/94
				SE 0582950 T3	
				ES 2108176 T	16/12/97
				FI 933592 A	14/02/94
				JP 6206657 A	26/07/94
WO	8805698	A1	11/08/88	AT 57480 T	15/11/90
				DE 3703834 A	18/08/88
				DE 3860821 D	00/00/00
				EP 0301061 A,B	01/02/89
				SE 0301061 T3	
				FI 884637 A	07/10/88
EP	0571351	A1	24/11/93	SE 0571351 T3	
				AT 162572 T	15/02/98
				CA 2096755 A	22/11/93
				DE 69316442 D,T	14/05/98
				FI 93885 B,C	28/02/95
				FI 922331 A	22/11/93
WO	9400637	A1	06/01/94	AT 130645 T	15/12/95
				CA 2116432 A	06/01/94
				DE 4220603 A	13/01/94
				DE 59301004 D	00/00/00
				EP 0601168 A,B	15/06/94
				FI 100672 B	00/00/00
				FI 940844 A	23/02/94
				JP 6509990 T	10/11/94
US	5264247	A	23/11/93	FI 904541 A	15/03/92
				US 5595601 A	21/01/97
				AU 6482396 A	30/01/97
				EP 0837901 A	29/04/98
				JP 2000500161 T	11/01/00
				WO 9701599 A	16/01/97